WE CLAIM:

1. A method for producing functional antigen presenting dendritic cells from an extracorporeal quantity of a subject's blood, said method comprising the steps of:

(a) treating the extracorporeal quantity of blood with a photoactivatable agent capable of inducing apoptosis in disease effector agents contained in the blood;

(b) flowing the the extracorporeal quantity of blood through a photopheresis apparatus having plastic channels with a diameter of about 1 mm or less;

(c) irradiating the the extracorporeal quantity of blood as it flows though the photopheresis apparatus; and

(d) incubating the the extracorporeal quantity of blood after treatment in the photopheresis apparatus.

2. The method of claim 1, wherein prior to step (b) the method further comprises the step of:

separating the leukocytes and monocytes from the the extracorporeal quantity of blood by subjecting the the extracorporeal quantity of blood to a leukapheresis process.

3. The method of claim 2, wherein the photoactivatable agent is a psoralen.

4. The method of claim 3, wherein the photoactivatable agent is 8-MOP.

5. The method of claim 4, wherein the disease effector agents are malignant T-cells.

6. The method of claim 1, wherein the disease effector agents are cancer cells from solid tumors which are contained in the the extracorporeal quantity of blood.

7. The method of claim 1, wherein incubation is conducted for a period of from about 6 to about 48 hours.

8. The method of claim 7, wherein incubation is conducted for a period of from about 12 to about 24 hours.

9. A method for producing functional antigen presenting dendritic cells from an extracorporeal quantity of a subject's blood, said method comprising the steps of:

(a) inducing apoptosis of disease effector agents contained in the the extracorporeal quantity of blood;

(b) flowing the the extracorporeal quantity of blood through plastic channels having a diameter of between about 0.5 mm and about 5mm; and

(c) incubating the the extracorporeal quantity of blood following passage though the plastic channel.

10. The method of claim 9, wherein the step of flowing the the extracorporeal quantity of blood through plastic channels is performed in a photopheresis apparatus having channels with a diameter of about 1 mm or less.

11. The method of claim 9, wherein the step inducing apoptosis of disease effector agents contained in the extracorporeal quantity of blood is comprised of the steps of:

(d) adding a photoactivatable agent to the the extracorporeal quantity of blood; and

(e) irradiating the the extracorporeal quantity of blood with ultraviolet light.

12. The method of claim 11, wherein the photoactivatable agent is 8-MOP.

13. The method of claim 9, further comprising the step of treating the the extracorporeal quantity of blood in a leukapheresis device to prepare a white blood cell concentrate.

14. The method of claim 9, wherein incubation is conducted for a period of from about 6 to about 48 hours.

15. The method of claim 14, wherein incubation is conducted for a period of from about 12 to about 24 hours.

16. A method for producing functional antigen presenting dendritic cells from an extracorporeal quantity of a subject's blood, said method comprising the steps of:

(a) coating disease effector agents in the the extracorporeal quantity of blood with monoclonal antibodies having a free Fc segment;

(b) flowing the the extracorporeal quantity of blood through plastic channels having a diameter of from about 0.5 mm to about 5mm; and

(c) incubating the the extracorporeal quantity of blood following passage though the plastic channel.

17. The method of claim 16, wherein the disease effector agents are solid tumor cancer cells which are contained in the extracorporeal quantity of the subject's blood.

18. The method of claim 16, further comprising the step of inducing apoptosis of the disease effector agents contained in the the extracorporeal quantity of blood.

19. The method of claim 18, wherein the disease effector agents are malignant T-cells.

20. The method of claim 16, wherein incubation is conducted for a period of from about 6 to about 48 hours.

21. The method of claim 17, wherein incubation is conducted for a period of from about 12 to about 24 hours.

22. A method for producing functional antigen presenting dendritic cells from an extracorporeal quantity of a subject's blood, said method comprising the steps of:

(a) inducing apoptosis of disease effector agents isolated from the subject;

(b) flowing the the extracorporeal quantity of blood through plastic channels having a diameter of about 1 mm or less;

(c) combining the apoptotic disease effector agents with the extracorporeal quantity of blood; and

(d) incubating the combined apoptotic disease effector agents and treated blood.

23. The method of claim 19, further comprising the step of coating the apoptotic disease effector agents with monoclonal antibodies having a free Fc segment.

24. The method of claim 19, wherein incubation is conducted for a period of from about 6 to about 48 hours.

25. The method of claim 21, wherein incubation is conducted for a period of from about 12 to about 24 hours.